

1. how feasible is it to achieve the level of reduction both that is needed and that you would hope to achieve in the recommendations that you've put forward within the timelines needed to avoid landfill shortfalls?

There is an urgent need to ensure NSW's growing waste can be managed safely and sustainably, particularly as landfill capacity diminishes. The NSW Government has acknowledged this through Chapter 1 of the *Draft NSW Waste and Circular Infrastructure Plan*. The plan importantly emphasises the urgency of addressing landfill shortfalls, and notes a range of pathways to address these shortfalls: extending existing landfill capacity, potentially reopening closed landfills and enabling suitable energy from waste (EfW) infrastructure. While each of these may contribute to short-term resilience, **not all options are equally aligned with NSW's climate, circular economy and emissions-reduction goals.**

Meeting the necessary reduction in waste disposal demand within the required timelines is *feasible*, but only if NSW prioritises solutions that can deliver rapid, scalable management and diversion outcomes **without locking in high-emission infrastructure.**

We therefore caution on any attempt to prioritise thermal EfW infrastructure as a primary solution to NSW's residual waste. Both local and international evidence demonstrates that EfW can undermine both decarbonisation and circular economy objectives by:

- diverting materials that could otherwise be recycled or recovered;
- locking Councils into long term waste supply contracts that counteract waste prevention and recovery efforts; and
- introducing a high emissions technology at a time when the electricity grid is rapidly decarbonising.

For example, Zero Waste Europe¹ has documented the progressive defunding of EfW, as financial institutions and the European Union (EU) recognised that it opposes the transition towards a carbon-neutral and circular economy. More recently, BBC analysis² has shown that EfW is now the UK's most carbon intensive form of energy. A Scottish Inquiry³ highlighted risks to future decarbonisation of the energy grid and has effectively halted any future EfW projects. There are growing calls for EfW to be

¹ Zero Waste Europe (2021) *The EU is clear: Waste-To-Energy incineration has no place in the sustainability agenda*, available at <https://zerowasteurope.eu/2021/05/wte-incineration-no-place-sustainability-agenda/>

² BBC (2024) Burning rubbish now UK's dirtiest form of power, <https://www.bbc.com/news/articles/cp3wxgje5pwo>

³ The Scottish Government (2022) *Stop, Sort, Burn, Bury - incineration in the waste hierarchy: independent review*, available at <https://www.gov.scot/publications/stop-sort-burn-bury-independent-review-role-incineration-waste-hierarchy-scotland/pages/1/>

included in the EU Emissions Trading System (EU ETS), including recent evidence⁴ that this would yield significant climate and economic benefits.

The United States has also moved away from EfW. After rapid development in the 1980s and early 1990s, the U.S. effectively stopped commissioning new waste-to-energy facilities after 1995, due to emissions concerns, tightening pollution controls, high capital costs and sustained community opposition⁵. As a result, the number of operating facilities has fallen dramatically – from 187 incinerators in 1991 to just 66 by mid-2023 – with no new plants built since 1995⁶. This long-term decline demonstrates the practical, financial and environmental limitations of thermal EfW in modern waste systems.

Conditions needed to ensure EfW does not impede emissions or circular economy goals

NSW should focus on interventions that prioritise the principles of the circular economy and preferences higher order outcomes that keep valuable materials, especially organics, circulating in our economy. To achieve this, the NSW Government must establish **clear, consistent and accurate frameworks for assessing EfW proposals**, including transparent carbon accounting that reflects full lifecycle emissions, including the fossil-plastic content of typical residual waste streams.

Priority actions that can realistically achieve the required reductions

To avoid residual waste management shortfalls while also meeting climate and circular economy targets, the NSW Government should accelerate:

1. **Scaling up recycling and resource recovery**, including organics processing infrastructure capable of diverting large tonnages quickly.
2. **Market development for recovered materials**, ensuring there is stable demand and value for recycled outputs.
3. **Investment in circular economy technologies**, particularly those that reduce waste generation and enhance material reuse across supply chains.
4. **Expanded or new, modern landfills**, designed to best practice environmental standards, to relieve short-term capacity shortfalls

These measures can be deployed faster and more flexibly than large thermal EfW facilities.

⁴ CE Delft (2025) *Waste Incineration under the EU ETS Assessment of climate benefits – Update 2025*, available at <https://zerowasteurope.eu/library/waste-incineration-under-the-eu-ets-an-assessment-of-climate-benefits-2/>

⁵ U.S. Energy Information Administration (2022) *U.S. capacity to convert waste to energy declines after remaining steady since 1994*, available at <https://www.eia.gov/todayinenergy/detail.php?id=53639>

⁶ Ibid.

The United Kingdom provides an example worth considering. Recognising the benefits of anaerobic digestion (AD) for meeting climate, energy and resource recovery goals, the UK Government committed to an increase in energy from waste through AD, through the *AD Strategy and Action Plan (2011)*. With targeted financial incentives, AD has grown to become the preferred method for managing food waste and, as of 2021, had the capacity to process more than 3.2 million tonnes of food waste across the UK⁷, reducing methane emissions and producing renewable energy to power the UK circular economy.

With the right policy settings and investment signals, NSW could also achieve these positive policy outcomes.

2. do you see any regulatory framework or set of conditions under which there could be an acceptable or defined role for EFW?

As noted in the response to question 1, NSW should focus on interventions that prioritise the principles of the circular economy and preferences higher order outcomes that keep valuable materials, especially organics, circulating in our economy. To achieve this, the NSW Government must establish **clear, consistent and accurate frameworks for assessing EFW proposals**, including transparent carbon accounting that reflects full lifecycle emissions including the fossil-plastic content of typical residual waste streams.

3. I just want to ask about food waste in Australia, and the survey that was done in relation to that. In particular, you talk about other ways of reforming use-by dates. Can you elaborate a little bit more on that? Is there any research or work that has been done, and what are the date parameters that are looked at?

This question relates to the Australia Institute discussion paper ‘Food waste in Australia’ from September 2023. This paper included a brief discussion of how consumers often do not understand the difference between use-by and best-before labels and how this creates additional food waste. The report did not make specific recommendations on changes to date parameters but noted that “Further EU-based research has indicated that adding just two additional days of shelf life to a perishable product could reduce household food waste by up to 63%.”

4. Organisations like Foodbank and SecondBite, and those initiatives that use food near or just outside its use-by date to support others in the community—in the survey, was any work done or questions asked around that?

⁷ WRAP UK (2021) *AD and Composting Industry Market Survey Report 2020*

This question relates to the Australia Institute discussion paper ‘Food waste in Australia’ from September 2023. The paper included a survey which gauged support for regulatory changes, including “Reforming ‘us by’ and ‘best before’ labels to reduce premature food disposal”, finding that 78% support this reform. No questions were asked in this survey about Foodbank or SecondBite, or similar initiatives. The Australia Institute has done some work with related initiatives, such as hosting a webinar with Ozharvest.

5. Looking at the Redbank scenario, was there anything within the existing laws that could allow them to deviate from contracts?

The Australia Institute has not done specific research into this topic and is unaware of whether there is anything within the existing laws that would allow Redbank to deviate from contracts. The Australia Institute’s submission discussed Redbank to highlight the risk of the energy-from-waste facility incentivising continued high levels of waste production.

6. Our landfill in New South Wales is projected to run out by 2030. What is your suggestion in terms of a solution to our waste issues?

In considering the solution to NSW’s projected landfill shortfall by 2030, the best solution must be both feasible in the short-term and strategic in the long-term.

While NSW must prioritise waste avoidance, recycling, and organics recovery to drive down residual waste, the reality is that current projections show a capacity shortfall within 6 years, according to the draft NSW Waste and Circular Infrastructure Plan. A solution is needed for residual waste, and developing additional landfill capacity would be faster, less capital-intensive, and more flexible than committing to thermal EfW infrastructure, which have been shown to cost in excess of \$1 billion⁸ in an Australian context.

New landfills, designed to best practice environmental standards, incorporating best practice gas capture, can act as a lower-risk, interim safety valve while NSW accelerates investment in circular economy infrastructure. Recognising this does not diminish the urgency of scaling higher-order recycling and resource recovery solutions; rather, it ensures NSW maintains continuity of essential waste services without locking communities into high-emission pathways for decades.

The Draft *NSW Waste and Circular Infrastructure Plan*⁹ signals mechanisms for extending and expanding landfills, including via fast-track approvals, as an interim

⁸ Business News (2025) *\$1.1bn Kwinana waste facility a first for Australia*, <https://www.businessnews.com.au/article/11bn-Kwinana-waste-facility-a-first-for-Australia>

⁹ NSW Government (2025) *Draft NSW Waste and Circular Infrastructure Plan*, p.13.

solution which may act to relieve pressure in the short-term. This would appear to be the most feasible option available to NSW for managing residuals at this stage.

7. In terms of what options we've currently got available to us, and, as I alluded to earlier, the fact that we are projected to run out of landfill here in New South Wales by 2030, should we build another landfill instead, as opposed to looking at energy-from-waste facilities?

Please refer to the response to question 6. In summary:

- **Yes, new landfill capacity will be needed** to address short-term capacity issues while we transition to a circular economy
- The longer-term solution lies in **prioritising circular solutions**, to reduce residual waste generation and reliance on landfills.

8. Let's talk about construction and demolition waste, perhaps. This is largely unrecyclable. It's usually contaminated with things like asbestos, lead and other products. If that can't go to landfill, where should that go?

The responses to questions 1 and 6 detail suggestions for waste management policy over the short and long term, including expanded or new modern landfills designed to best practice environmental standards, to relieve short-term capacity shortfall.

9. In the opening statement of the Australia Institute where it specifically references the health and environmental risks for regional communities, is the Australia Institute suggesting that there are risks for health and environment of regional communities, and has that been assessed or verified in any way from the position of the Australia Institute?

The Australia Institute has not specifically researched the health and environmental risks for regional communities of this proposal; the focus has been on the broader waste management concerns raised by thermal EfW facilities in NSW's current circumstances. The risks are explored in greater depth by other submissions, such as that of the Parkes Clean Future Alliance.